



NITE-TIMES NEWS

Chicago Area Timex Users Group
Volume 6, Number 6

Downers Grove, Illinois
November/December 1992

MEMORY MAP

ROUTINES

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C.A.T.U.G. CLUB OFFICERS

Here is the list of 1992 club officers and how to contact them. The club has two strong SIGS, SPECTRUM/TS2068 and QL. If you have questions about either of these fine machines or even the ZX81/TS1000/TS1500 call one of the officers. C=312, S=708.

POSITION	NAME	PHONE	PRIMARY FUNCTION
President	Nazir Pashtoon	S439-1679	The buck stops here...
Vice-President	Steve Cooper	S968-3553	Meeting Planning, etc.
Secretary	Jim Brezina	S832-1782	Records and Reporting
Treasurer	Frank Mills	S544-1918	Dues and Purchasing
Editor	Bob Swoger	S576-8068	Newsletter, BBS, etc.

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NITE-TIMES NEWS

Nite-Times Information

The Nite-Times News is the newsletter of the Chicago Area Timex Users Group. For an annual fee of \$12.00 you can become a CATUG member and receive six newsletters each year. Write your check payable to:

**FRANK MILLS
417 S 47th AVE
BELLWOOD IL 60104**

The Chicago Area Timex Users Group is pleased to exchange newsletters with other Timex and Sinclair supporting users groups at no charge. Send all newsletter requests to:

**CATUG EDITOR BOB SWOGER
613 PARKSIDE CIRCLE
STREAMWOOD IL 60107-1647**

If you desire to reprint any articles that appear here, please provide credit to the author and this newsletter.

We encourage your user group to copy this newsletter and distribute it at your regular meetings to your members free of any charge as we believe that this will encourage better meeting attendance. If you are a user group that feels as we do, please let us know in your newsletter so that we might do this for our members and keep our attendance up.

Articles originating from our group may be downloaded from our BBS and reprinted.

CONTRIBUTORS TO THIS ISSUE

**Jim Brezina
Abed Kahale
Frank Mills
Bob Swoger, K9WVY**

CLUB MEETINGS

The Chicago Area Timex Users Group meets on the THIRD Saturday of each month at the

home of our meeting coordinator Steve Cooper in Downers Grove, Illinois from 1:00 to 5:00 PM. Steve's home is lovingly called the CLUB HOUSE and is located at 1300 Maple Street in Downers Grove just 2 blocks southwest of the Downers Grove Public Library. Steve should be contacted evenings at 708/968-3553. to confirm the meeting schedule.

TREASURY NOTES

The balance as of Dec. 01, 1992 is \$251.20 Our current paid membership stands at 18.

**Frank Mills, Treasurer
Chicago Area Timex Users Group**

SECRETARY'S NOTEPAD

October 17, 1992

Present: Kahale, Mills, Swoger, Donaldson, Pashtoon, Pagano, Cooper, Brezina and Sauter. Meeting called to order at 1:43 P.M.

Because Pagano and Donaldson were unable to attend the September meeting, our president, Nazir Pashtoon, gave an overview of the September meeting. He told how our guests Frank Davis and Paul Holmgren of Mechanical Affinity gave us first hand details of the happenings at the Dayton ComputerFest. When that meeting adjourned, Frank and Paul showed what they brought with them. Bob Swoger highlighted the items purchased by our various members. Those members that stayed later than 5 P.M. went out with our guests to eat. It was after 10 P.M. when they left for home in Indiana!

Bob Swoger made mention of Sinclair items that Al Sherman donated to the club. Dave Lebowicz had suggested in the past that items like these be given to schools. Bob stated that the schools wanted only new mainstream computers and

would no doubt trash equipment like this. Bob favored the equipment going to members who might need it for back-up. The reason Al Sherman had to get out was no back-ups! See 'FROM THE EDITOR'S DISK' NITE-TIMES NEWS Volume 6 Number 5 for September/October 1992.

The meeting was adjourned at 2:15 P.M.

November 28, 1992

Those present were:- Brezina, Cooper, Donaldson, Mills, Pagano, Pashtoon, Sauter and Swoger. Meeting was called to order at 2:00 P.M. Not present was Abed Kahale. Steve Cooper called Abed's number and found that he was down in Jawgia.

Bob Swoger, K9WVY, informed us that Peter Kwitkowski, K9RO and formerly WA9LEF, a dear friend at Motorola who had taught him to program in BASIC back in '72, developed encephalitis after a company trip down south and died at age 44. Pete used his ZX81 to track OSCAR satellites and the moon for two meter moon bounce operation as well as using it for antenna design. Pete was one of the founders of the first radio remote controlled repeater in the country, WR9ABQ, in Elgin, Illinois, a task he took on personally. Bob and Pete came up with the idea of anti-PL control for repeaters which allows operation of repeaters with sufficient distance between them to operate in a carrier squelch mode without cross interference.

Nazir mentioned that Jay Siegel had lost his job in the spring and that was why we haven't been getting his FDD newsletter. He might return to the Chicago area.

Bob Swoger stated he'd received a letter from Manfred Wetter of Copperbelt University in Kitwe, Zambia, requesting a copy of Quill, the QL word processor,

as his had become corrupted. Bob forwarded the letter to Pashtoon who sent the word processor to Manfred. Bob said he was impressed that Manfred knew of us.

Donaldson brought a bunch of TS1000/ZX81 books, some of which he was giving away free, others he was charging for.

Pashtoon brought a Radio Shack color printer(TRS-80 CGP 115) borrowed from Jay Siegel which he was demonstrating attached to a QL. It printed 40 column and 80 column by means of a switch on the back. I did not hear how the colors were done but I think it was by a command. The text printing was both very small and very readable.

Donaldson demonstrated two Quanta Disks. One was called slide show which showed screens like a slide projector. The other disk was on animation which the members enjoyed watching.

Bob Swoger was giving a demonstration of 3D graphics. Some of the members could see the 3D effect but I could not. When I got home I tried it on my own equipment. With my bifocals I was able to see what could be considered 3D by looking through both parts of the glasses.

The meeting was adjourned at 2:19 P.M.

December 19, 1992

Meeting called to order at 2:12 P.M. Present were Pashtoon, Mills, Sauter, Cooper, Kahale, Swoger, Pagano, Sauter, and Brezina.

Bob Swoger brought in Xmas cards from Gary Lessenberry and Grant Thomas and the letter from Zambia. He thought that Pashtoon should keep the Zambia letter. Abed asked about SMUG.

Bob hadn't heard anything from them.

Bob bought a Shugart drive and gave it to Abed to try out, but it didn't work with Abed's TS2068. Pashtoon mentioned that he got a letter from Mike Stevens of Oakland, California. He said Mike saw a mention of our newsletter in CATS and sent in \$12.00 to become an out of town member.

Frank Mills, our treasurer said we could lower our dues because there was \$250 in the account. Bob reminded us that two more newsletters had to be delivered and felt we should keep the dues the same so that if we see something available that we could use in the club, we could buy it.

Bob mentioned that one member of NESQLUG, Mike Jonas, gets newsletters from other clubs, reads the newsletters and decides whether there is anything worth while in them. If he decides there is, he informs the others in the NESQLUG newsletter of the availability of those articles.

We distributed the copies of our out-of-town newsletters to all members present and adjourned the meeting at 2:53 P.M.

James F. Brezina, Secretary
Chicago Area Timex Users Group

FROM THE EDITORS DISK

Noted at the December meeting was the fact that Mike Jonas of NESQLUG seems to screen the exchange newsletters rather than getting copies of them to hand out at club meetings. It does hurt a little to see 'Articles of Interest: NONE'. Even if a newsletter has no articles about our particular machines, we at CATUG still find the ideas, concepts and the information about the various Sinclair computers and groups of much interest!

Thanks, Ruth Fegley, for your evaluation of all the various exchange newsletters. Your comments are what re-fueled us editors/writers just when we were about to quit because of burn-out. It would be appropriate to do that kind of article once a year! Thanks for being lenient with me for being late with our newsletters, your noting that I do the newsletters of four groups is indeed the reason for the lag. At least, they do get out even if late. I do hope to catch up soon.

Thanks Bob and Audrey Curnutt of CATS and Bill Heberlein of SMUG for sending those missing issues of your newsletters for our collection. Bob and Audrey, the missing issues of CATUG are on their way to you.

Rod Gowen, we noted your request for someone to help with the exchange newsletters. I would remind the folks behind the Plotter that whoever undertakes the job will be enriched by that exchange of ideas, I wish you well in finding that person. Also, we wish to encourage the members of CCATS in their endeavor to complete the 'Best of' book.

As for RMG sales of Sinclair items being down in 1992, perhaps some change in marketing strategy is needed. We understand there is no more LarKen hardware left? Boy, that hurts!

Also getting harder to find is 5.25" disk drives in cases with power supplies at the proper prices. I have been able to buy such drives in my area for \$30 for single drives, \$50 or less for double drives, but the sources are drying up. Also, monitors with composite video or Sinclair type RGB inputs are becoming scarce.

I would suggest that people with these items who will never use them again get them into

the hands of those that need them by donation to user groups or vendors rather than schools which just throw them out. I have first hand knowledge of this practice.

It is time for Sinclair computer owners to get back-up gear for their machines against that time when the inevitable happens! Our own secretary, Jim Brezina, is 'on tape' these days because his ZEBRA system 'quit' and he had no back-up! I presently have a back-up for every piece of gear I use, you should too! My compliments to past member Al Sherman for giving CATUG the left-overs of his collection when his TS2068s flamed out! Accidents do happen! NOW is the time to complete and back-up your ultimate Sinclair system as the prices for the available gear is probably at its lowest.

!!! MISSING NEWSLETTERS !!!

USER GROUPS

!!!!!! PLEASE HELP US !!!!!!!
CATUG is still missing the following newsletters from its library:

DATA BUS	MAY 91
THE HACKER	MAY 91
ISTUG	JUL/AUG 1990
	MAR/APR 1991
LISTing	MAR thru SEP 1991
SWYM	V6-N3
	V6-N4
QZX	V7 N11 OCT89
	V8 N12 NOV90
	V9 N11 OCT91

We will be glad to get them from any person or group, even pay for the mailing and returning originals. If the same thing has happened to your group in regards to our newsletters, please let us know and we will forward ours to you. SEND TO:

BOB SWOGER
613 PARKSIDE CIR
STREAMWOOD IL 60107-1647

Bob Swoger, Editor
Chicago Area Timex Users Group

BUS STOP

Pete Kwitkowski, K9RO and formally WA9LEF, has moved on to GLORY! Pete started working at Motorola in 1971, his first assignment, making the High Band MICOR Mobile Radio RF Power Amplifier work more reliably. He succeeded by removing the troublesome Motorola RF devices and replacing them with TRW devices. The radio, which could barely make 120 Watts out could now do over 150 Watts and was now rugged.

His next contribution was the RF PA for the UHF MICOR in the 403 MHz to 420 MHz range. We also worked in those days on 900 MHz MICOR Mobiles for the project that went to Washington D.C. to acquire the 900 MHz band for Trunking and Cellular Phone. Needless to say that gear got the job done.

During those early years Pete put together the first Radio Remote Controlled Amateur Repeater licensed in Illinois, and maybe the country, WR9ABQ for the Valley Amateur Repeater Association. His work on both the control scheme and the laborious paperwork required by the F.C.C. could only have been done by a person with his persistence!

Pete was a VHF and UHF contest man in the Amateur Radio community whose name was often seen in QST, the magazine of the American Radio Relay League. He showed me how to bounce VHF signals off of the aurora borealis.

I helped him pull down a tower from the home of Schwinn in Itasca and saw it go up again in the back yard of his home near St. Charles. He put eight 2-meter Yagis on it and bounced signals off the moon. That is where I saw my first Sinclair ZX81 computer, Pete used it to both aim his antennas and track satellites. Pete had eight

years earlier gotten me interested in computers by teaching me BASIC on the company Hewlett Packard 9830 computer, he had been given a project to calculate the offset oscillator and program the 36 jumpers in the Super Switching Board of the UHF MICOR on that vary same computer.

He took me to my first HamFest and I won a 22-element 2-meter Cushcraft bean. He then helped me get a tower and helped dig the hole for the concrete! I'm sure he helped many others the same way.

Pete, a bunch of us loved you and will miss you..... thanks for giving/teaching us so much!

====GATOR=====

GATOR's TWISTED PAIR

! ! ! R E M E M B E R ! ! !
We now have a 24 hour BBS and encourage you to exchange mail and contribute to the Download Section. Use it and have fun!

The board has become semi-private at this time. Please call Bob Swoger at 708/576-8068 for information as to how to log on.

Bob Swoger, SYSOP
Chicago Area Timex Users Group

ITEMS FOR SALE THROUGH THE CLUB

It has come to our attention that some LarKen Users are using something less than Version 3 firmware. The club will supply updated EPROMs, SYSTEM DISKS, and MANUALS for just \$5 which includes shipping and handling, free if ordered with LogiCall or Spectrum ROM.

If you are a LarKen LK-DOS owner and would like a SPECTRUM V2 kit for your system we will supply an EPROM, socket and 74HCT32 for \$12 which includes shipping and handling. The install instructions are in

your LarKen manual. We shall not be responsible for your install job. AERCO owners need only the SPECTRUM EPROM for \$10 \$10 is forwarded to LarKen.

If you have a mismatch between you LarKen DOS EPROM and your Western Digital Controller chip, we will send you the correct one for free on behalf of our friends Rod Gowen of RMG and Larry Kenny of LarKen. You should be using L3 EPROMs with WD1770 controller chips or L3F EPROMs with WD1772 controller chips. Check it out! Call in requests to Bob Swoger at W708-576-8068 H708-837-7957

SPECIAL DEALS AND BUYS

NAP_Ware (Nazir A. Pashtoon's new endeavor) announces the availability of all Timex or QL PAL (Programmable Array Logic) chips. If interested, call him evenings on 708-439-1679.

LogiCall Integrated Software Ensemble easy operating system for LKDOS in both TS2068 and Spectrum modes includes LogiCall 4.8 TASWORD TWO V2.7, VU-CALC V1.3, VU-FILE and MTERM2 Drivers modified for LogiCall, DISKS.B1 TAPES.B1 steprt.B1 HEADER.BT (tape header reader by Nazir Pashtoon) FORMAT.B MOVE.BL and more all on 2 SSDD disks for \$5. You must specify your LK-DOS EPROM version. If you already have a copy you are encouraged to distribute copies to other LarKen LK-DOS users for as you see by the price we are not in the business of making money on it, just making LarKen's LK-DOS even better!

So you like to fly? The 747 Flight Simulator for Spectrum by Derek Ashton of DACC sold over 40K copies in EUROPE. Requires Spectrum Emulator. At this time supplied on LarKen SSDD disk only for \$10 which goes to Derek Ashton, now working at MOTOROLA with Bob Swoger. Call in requests to Bob at W708-576-8068 H708-837-7957

ARTICLES

LOADER V by Bob Swoger

Kurt Casby gave us a real gem when he wrote Loader V for use with MTERM Smart terminal II. To review, both MTERM and MSCRIPT were written by Steve Pagliarulo of MICRO-SYSTEMS SOFTWARE INC. OF West Palm Beach, Florida, and therefore the file transfers between the two are compatible. What the TS2068 community needed was a way to move TASWORD TWO and machine code files using MTERM and XMODEM capability over MA BELL's really bad long distance phone lines.

The essential features:

- 1) The ability to send and receive TASWORD files.
- 2) Send & receive using XMODEM file transfer protocol.
- 3) Upload BASIC files with long line statements to computers with limited input buffers like the club computer.

The nice added features:

- 4) Longer dialing menu.
- 5) Speed dialing.
- 6) Off-line buffer reloading.

!! LITTLE REALIZED FACT !!
Loader V not only converts MSCRIPT files into TASWORD files but also converts TASWORD files into MSCRIPT files as well! LOADER.B1 gives us the ability to transform TASWORD files into MSCRIPT files as it loads the files into MTERM's buffer beginning at address 26710! You can actually convert TASWORD files to MSCRIPT files without printer controls rather easily using this technique. To get the files back on disk as MSCRIPT files simply exit to BASIC from the MTERM Main Menu and save the file using the format RANDOMIZE USR 100: SAVE "filename.Cm" CODE 26710,BUFUSD BUFUSD is from the MTERM Main

Menu screen in the lower right hand side.

Let us now define UPLOAD and DOWNLOAD. An UPLOAD TO a host means that you will put/pass/send/transmit data of some kind, be it a BASIC program, machine code, or a text file from your word processor, to a computer on the other end of your phone line. A DOWNLOAD FROM a host means that you will get/take/receive data of some kind from a computer on the other end of your phone line.

Loader V is made up of five programs. LOADER.BV, as re-written, comes up with CIS_UP and MTERM machine code loaded. This is the startup screen:

Loader V ©1985 by K.A.Casby

MAIN MENU:

- 1) RUN MTERM
- 2) DIALING MENU
- 3) LOAD BUFFER
- 4) LOAD CIS-UP
- 5) LOAD XMODEM
- 6) EXIT

PRINT USR 24024 - send
PRINT USR 24415 - receive

Your Choice?

Write the two PRINT USR numbers down if you are going to use them during your terminal session, you will not see them again during your communication. Pressing 5 will load XMODEM into Loader V while pressing 4 will reload CIS-UP code back into Loader V. PRINT USR 24024 works to upload files in either CIS-UP mode or XMODEM, whichever one happens to be loaded. PRINT USR 24415 works only to receive XMODEM mode. This is explained in your manual.

To upload a TASWORD text file to a host, select 3 from the main menu. You are then asked which drive to go to and the CATALOG of that disk is shown.

Enter the filename and extension, press ENTER, and you are shown the next screen:

Loader V ©1985 by K.A.Casby

Name of File: ntnart.CT

Carriage returns:

- 1) None
- 2) Each line
- 3) Each paragraph

Your Choice?

1) is for machine code uploads [files that end in C_ but not CT], so select 2). You will then be back at the main menu where you may select either 1) or 2) to proceed.

RELOAD.B1 allows us to go off-line and reload MTERM's buffer without terminating the session with the host computer.

CIS-UP.B1 permits operation with input buffered computers which have limited input buffer space. The CATUG and T/SNUG BBSs are such machines, limiting input strings to 256 characters. If you have a really long concatenated BASIC line of code, CIS-UP will chop up the line for you on the UPLOAD so that you don't crash the host. This feature need not be used as it is now accessible from the Loader V main menu at 4).

TSXMDM.B1 gives us the ability to do XMODEM transfers not offered by MTERM. XMODEM protocol is Ward Christensen's public domain gift to the community which repeatedly sends blocks of data to a host computer until it is received properly. Loader V is Kurt Casby's gift to the Sinclair community which 'puts it all together. This feature need not be used as it is now accessible from the Loader V main menu at 5).

UNLOAD.B1 converts MTERM files received as text and MSCRIPT

files into TASWORD files.

The BASIC drivers of Loader V and RELOAD for LarKen are presented below. LOADER V has been given the name LDR.BV for use with LogiCall. A LarKen/LogiCall formatted Loader V disk and all documentation can be obtained from T/SNUG by calling Abed Kahale at 708-885-4337.

LDR.BV

```
1 CLEAR VAL "29063": LET p=VA
L "24007": LET f=VAL "20": LET h
=CODE "d": LET m=CODE "w": LET s
=PI+PI: DIM y$(VAL "12"): LET o=
NOT PI: LET i=SGN PI: LET b=i+i:
POKE VAL "23658",o: LET n$=" Lo
ader V -©1985 by K.A.Casby ":
BORDER i: PAPER i: INK VAL "9":
OUT m,o: CLS : PRINT n$''''TAB P
I*PI;"MAIN MENU:'''TAB s;"1) RU
N MTERM'''TAB s;"2) DIALING MENU
'''TAB s;"3) LOAD BUFFER'''TAB s
;"4) LOAD CIS-UP'''TAB s;"5) LOA
D XMODEM'''TAB s;"6) EXIT"''' P
RINT USR 24024 - send"''' PRINT U
SR 24415 - receive": GO SUB PI:
IF LEN z$<>i OR VAL z$<i OR VAL
z$>s THEN GO TO i
2 GO TO VAL z$f*f
3 INPUT "Your Choice? "; LINE
z$: RETURN
20 RANDOMIZE USR VAL "23817"
40 LET t=i: CLS : RESTORE : PR
INT n$: FOR x=CODE "a" TO CODE "
t": READ z$,y$: PRINT CHR$ x;"")
";z$:: LET y$(i)="-": PRINT TAB
f;y$: BRIGHT x-INT (x/b)*b: NEXT
x: PRINT "u) Dial a # not liste
d": GO SUB PI: IF z$<"a" OR z$>"u"
THEN RUN
41 IF z$="u" THEN INPUT "Phone
#? "; LINE y$: GO TO CODE "+"
42 RESTORE : FOR x=i TO b+b*(C
ODE z$-CODE "a"): READ y$: NEXT
x
43 POKE p+b,CODE "O"+CODE ",,"*
(CODE y$=CODE "E")+LEN y$*(CODE
y$=CODE "O")
44 LET z$="": FOR x=i TO LEN y
$:: IF VAL y$(x)>=o AND y$(x)<="9
" THEN LET z$=z$+y$(x)
45 OUT m,o: NEXT x: IF z$="" T
HEN RUN
46 BEEP VAL ".1",f: PRINT #o,;
AT o,o: FLASH i;" Dialing -
";AT o,VAL "11"
; OVER i;z$;" - Try#";t
```

```

47 OUT m,VAL "31": PAUSE VAL "
60": FOR x=i TO LEN z$: LET z=VA
L z$(x): IF z=o THEN LET z=f/b
48 PAUSE VAL "25": FOR d=i TO
z: FOR e=INT PI TO VAL "4": OUT
m,e: PAUSE b: NEXT e: OUT m,i: O
UT m,b: NEXT d: NEXT x
49 FOR x=i TO VAL "2e3": IF IN
m=VAL "133" THEN OUT m,VAL "34"
: POKE p+i,i: BEEP i,f: GO TO f
50 NEXT x: OUT m,o: PAUSE h: L
ET t=t+i: GO TO VAL "46"
60 INPUT "Drive? ";d: RANDOMIZ
E USR h: GO TO d: CLS : RANDOMIZ
E USR h: CAT ".C^":, INPUT "File
name? "; LINE x$: CLS : PRINT n$'
'''Name of File: ";; PRINT x$'
"Carriage returns:"'"1) None"
"2) Each line""3) Each paragrap
h": GO SUB PI: IF LEN z$<>i OR V
AL z$<i OR VAL z$>PI THEN RUN
61 PRINT AT s,VAL "18";z$''
'''Loading: ";;x$;": RANDOMIZE
USR VAL "23780": POKE VAL "2372
8",h: RANDOMIZE USR h: LOAD x$CO
DE VAL "29064": POKE p,VAL z$: P
RINT : PRINT FLASH i;" LOAD comp
lete, press any key! ": PAUSE o
: RUN
80 RANDOMIZE USR h: LOAD "CIS-
UP.CV"CODE : RUN
100 RANDOMIZE USR h: LOAD "TSXM
DM.CV"CODE : RUN
120 ON ERR RESET : GO TO VAL "9
998"
200 DATA "T/SNUG BBS","P1708576
7072"
201 DATA "CATUG BBS","P17085767
140"
202 DATA "J Shepard","P15158466
378"
203 DATA "D Lambert","P12199251
372"
204 DATA "A Kahale","P170888543
37"
205 DATA "R Swoger","P170883779
57"
206 DATA "", "P"
207 DATA "", "P"
208 DATA "", "P"
209 DATA "", "P"
210 DATA "", "P"
211 DATA "", "P"
212 DATA "", "P"
213 DATA "", "P"
214 DATA "", "P"
215 DATA "", "P"
216 DATA "", "P"
217 DATA "", "P"
218 DATA "", "P"
219 DATA "", "P"
9001 RANDOMIZE USR h: LOAD "ldr.

```

```

CV"CODE : RANDOMIZE USR h: LOAD
"mterm2.CV"CODE : RUN
9992 LET h=CODE "d": RANDOMIZE U
SR h: SAVE "LDR.BV" LINE VAL "9e
3"
9993 RANDOMIZE USR h: SAVE "ldr.
CV"CODE VAL "23780",VAL "781": R
ANDOMIZE USR h: SAVE "mterm2.CV"
CODE VAL "54016",VAL "9216"
9998 RANDOMIZE USR h: NEW

```

RELOAD.B1

```

1 POKE VAL "23658",NOT PI: CL
EAR VAL "29063": LET f=VAL "5":
LET h=VAL "100": LET o=SIN PI: L
ET i=SGN PI: LET b=i+i: LET c=VA
L "23780": LET n$=" Re*Loader
©1985 by K.A.Casby ": BORDER i:
PAPER i: INK VAL "9": CLS : PRIN
T n$''''TAB VAL "7";"1) RUN M
TERM''''TAB VAL "7";"2) LOAD BU
FFER": GO SUB PI: IF LEN z$<>i O
R z$<"1" OR z$>"2" THEN RUN
2 GO TO VAL z$*f
3 INPUT "Your Choice? "; LINE
z$: RETURN
5 ON ERR RESET : PRINT USR VA
L "23817"
10 INPUT "DRIVE? ";d: RANDOMIZ
E USR h: GO TO D: CLS : RANDOMIZ
E USR h: CAT ".C^":, PRINT "Driv
e # 00";d: INPUT "Filename?
"; LINE n$: CLS : PRINT '''Name
of File: ";; PRINT n$'''Carria
10 INPUT "DRIVE? ";d: RANDOMIZ
E USR h: GO TO D: CLS : RANDOMIZ
E USR h: CAT ".C^":, PRINT "Driv
e # 00";d: INPUT "Filename?
"; LINE n$: CLS : PRINT '''Name
of File: ";; PRINT n$'''Carria
ge returns:"'"1) None""2) Each
line""3) Each paragraph": GO S
UB PI: IF LEN z$<>i OR z$<"1" OR
z$>"3" THEN RUN
11 PRINT AT PI+PI,VAL "18";z$'
'''Now Loading: "''';n$;"
from Drive # ";d: RANDOMIZE USR
C: RANDOMIZE USR h: LOAD n$CODE
VAL "29064": POKE VAL "24007",VA
L z$: PRINT : PRINT FLASH i;" LO
AD complete, press any key! ":
PAUSE o: GO TO f
9992 RANDOMIZE USR h: SAVE "RELO
AD.B1" LINE 1
9998 RANDOMIZE USR h: LOAD "L.B1
"
```

AUTO SCALE AND BAR GRAPH

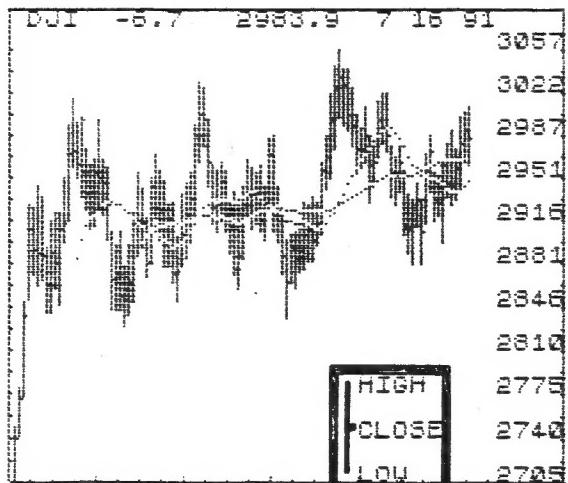
by:- Abed Kahale
 335 W. Newport Rd.
 Hoffman Estates, IL 60195

Very few T/S users would be interested in charting the Stock Market, but this program has a few innovations that may be useful. The program is an abbreviated version of what I daily put my 2068 to work, charting the Market and various stocks. The first screen copy is the Dow Jones Ind. with 15 & 30 day moving averages; The second screen copy is one of 24 indicators I use. (I am working on a screen dump for my Tandy DMP105)

Of interest are lines 480 to 540; the highest and the lowest numbers to be plotted are established. The difference is then plotted within the screen limits by lines 590 & 600 that also draw bar graph type chart, The OVER 1 command, line 100, is in effect. The numbers were entered in DIM(105) arrays and the program is saved with the arrays. Lines 660 to 800 plot moving averages. Lines 3140 to 3250 print the scale values to the right and lines 3320 to 3430 draw and plot scale tick marks at the screen borders; an afterthought.

The menu, lines 120 to 250, is made as efficient as possible using INKEY\$ lines 260 to 380 for selection. The arrays are updated daily, lines 2730 to 3040, by dropping element #(1) and adding element #(105) where the 2068 is SLOW. The arrays elements are reviewed by lines 3090,3120. GOTO 90 for menu, otherwise the variables are lost.

Thanks GOTO Bob Swoger for a faster algorithm for the moving averages.



```

10 DIM H(105): DIM L(105)
20 DIM C(105): DIM Q(105)
30 DIM X(105): DIM Y(105)
40 CLS : PAPER SGN PI: BORDER
50 SGN PI: INK VAL "9": PRINT AT NO
60 T PI,VAL "10"; PAPER VAL "5";"
70 D J I ":" BEEP .03,40: BEEP
80 .05,42: BEEP .03,45
90 LET S=90: LET H=100: OVER 1
100 DEF FN I(N)=INT (N#10+.5)/1
0
110 POKE 23617,236: POKE 23609,
120 POKE 23658,8
130 PRINT TAB VAL "6"; PAPER 2;
" TECHNICAL ANALYSIS "
140 PRINT " A. KAHALE 1985
Rev.N"
150 PRINT :"Use (GOTO 90) to st
art ":"Z$;" 91"
160 PRINT "XXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXX"
170 PRINT ""1. START A NEW CH
ART"
180 PRINT "2. Add NEW DATA "
190 PRINT "3. See CHARTS
";(38652- FREE )/1E3;"K"
200 PRINT "4. HI/LO O B U
9. OSC."
210 PRINT "5. BACKUP"
220 PRINT "6. See DATA
C. CAT"
230 PRINT "8";". DATE ?
9. Save"
240 PAUSE NOT PI
250 LET A$=INKEY$
260 IF A$="1" THEN GO TO VAL "3
270 IF A$="2" THEN GO TO VAL "2
280 IF A$="3" THEN GO TO VAL "3
290 IF A$="4" THEN GO SUB VAL "
300 IF A$="5" THEN GO TO VAL "3
310 IF A$="6" THEN GO TO VAL "3
320 IF A$="8" THEN INPUT "DATE
",",","Z$"
330 IF A$="9" THEN GO TO VAL "3
270 IF A$="C" THEN GO TO VAL "3
280 GO TO G
390 CLS : REM 2068
400 GO SUB VAL "3320"
410 LET L=H(1)
420 LET S=L(1)
430 FOR N=2 TO 105
440 IF H(N)>L THEN LET L=H(N)
450 IF L(N)<S THEN LET S=L(N)
460 NEXT N
470 LET D=S-L
480 PRINT AT NOT PI,SGN PI;"DJI
";FN I(C(105)-C(104));" ";C(
105);"
490 GO SUB VAL "3140"
500 FOR N=1 TO 105
510 PLOT 2*N+1, ((160/D)*(H(N)-S
520 DRAU 0,-((160/D)*(H(N)-S))
530 PLDT 2*N+1, ((160/D)*(L(N)-S
540 DRAU 0,-((160/D)*(L(N)-S))
550 PLOT 2*N+2, ((160/D)*(C(N)-S
560 NEXT N
570 BEEP ,1,45
580 LET TT=0: FOR F=1 TO 14: LE
T TT=TT+C(F): NEXT F
590 FOR N=15 TO 105
600 LET TT=TT+C(N)
610 LET T=TT/15
620 PLOT 2*N+1, ((160/D)*(T-S
630 LET TT=TT-C(N-14)
640 NEXT N

```

```

740 LET TT=0: FOR F=1 TO 29: LE
T TT=TT+O(F): NEXT F
750 FOR N=30 TO 105
760 LET TT=TT+O(N)
770 LET T=TT/30
780 PLOT 2*N+1,(160/D)*(T-5)
790 LET TT=TT-O(N-29)
800 NEXT N
810 PRINT AT VAL "21",VAL "20";
"LOW",AT 19,20;"CLOSE"
860 BEEP .1,35: PAUSE VAL "PI+4
": COPY : LPRINT "
880 DIM P(105)
890 FOR N=1 TO 105: LET P(N)=X(
N)-Y(N): NEXT N
1000 LET L=P(1): LET S=P(1)
1010 FOR N=2 TO 105
1020 IF P(N)>L THEN LET L=P(N)
1030 IF P(N)<S THEN LET S=P(N)
1040 NEXT N
1050 LET D=L-S
1060 CLS
1070 PRINT PAPER PI;" HIGHS-LOWS
M.A. & VOLUME NYSE "
1080 LET TT=0: FOR F=1 TO 9: LET
TT=TT+P(F): NEXT F
1090 FOR N=10 TO 105
1100 LET TT=TT+P(N)
1110 LET T=TT/10
1120 PLOT 2*N+10,((160/D)*(T-5))
1130 LET TT=TT-P(N-9)
1140 NEXT N
1150 LET L=0(1): LET S=0(1)
1160 FOR N=2 TO 105
1170 IF Q(N)>L THEN LET L=Q(N)
1180 IF Q(N)<S THEN LET S=Q(N)
1190 NEXT N: LET D=L-S
1200 FOR N=1 TO 105: PLOT 2*N+10
,((70/D)+(0(N)-5)): DRAW 0,-(70/
D)+(0(N)-5)): NEXT N
1210 PRINT AT 21,29; PAPER PI;S;
AT 13,28;L
1220 LET TT=0: FOR F=1 TO 14: LE
T TT=TT+O(F): NEXT F
1230 FOR N=15 TO 105
1240 LET TT=TT+O(N): LET T=TT/15
1250 PLOT 2*N+10,((60/D)*(3*T-5)
)-100
1260 LET TT=TT-O(N-14)
1270 NEXT N
2640 PAUSE VAL "200": IF INKEY$=
"?": THEN COPY : LPRINT "
2650 GO TO G
2660 CLS : REM ***CORRECTION***+
2670 INPUT "ENTER THE CORRECT NO
S. ":"H"/"H(Y)"/"L"/"L(Y)"/"C"/"C(Y)"/
"HS"/"X(Y)"/"LS"/"Y(Y)"/"D"/"D(Y)"
2680 PRINT H(Y)/L(Y)/C(Y)/S(Y)/U
(Y)/A(Y)/D(Y)/T(Y)/X(Y)/Y(Y)
2720 GO TO G
2730 CLS : REM SCREEN
2740 FOR N=1 TO 104
2750 LET H(N)=H(N+1)
2760 LET L(N)=L(N+1)
2770 LET C(N)=C(N+1)
2810 LET X(N)=X(N+1)
2820 LET Y(N)=Y(N+1)
2860 LET O(N)=O(N+1)
2870 NEXT N
2910 CLS
2920 BEEP .1,35: INPUT "HIGH"/"H(
105)"/"LOW"/"L(105)"/"CLOSE"/"C(10
5)"/"HS"/"X(105)"/"LS"/"Y(105)"/"VOLU
ME"/"O(105)"
2980 PRINT "1. Add more DATA "
"5. CORRECTION REENTER""0. FI
NI"
3000 IF A$="1" THEN GO TO VAL "2
730"
3010 IF A$="5" THEN GO TO VAL "2
910"
3020 IF A$="0" THEN GO TO S
3030 PAUSE NOT PI: CLS
3040 GO TO G

```

```

3050 SAVE "T91.BB" LINE 90
3060 VERIFY ""; BEEP .1,38
3070 GO TO G
3080 STOP : REM SCREEN
3090 CLS : FOR N=1 TO 105
3100 PRINT N;"H",H(N);",L";L(N)
",C"; BRIGHT SGN PI;C(N); BRIGH
T NOT PI;";X";X(N);";Y";Y(N);",,0
",0(N)
3110 NEXT N
3120 PAUSE NOT PI
3130 GO TO G: REM SCREEN
3140 PRINT AT 1,28;INT L
3150 PRINT AT 3,28;INT ((L-5)*.9
+.5)
3160 PRINT AT 5,28;INT ((L-5)*.8
+.5)
3170 PRINT AT 7,28;INT ((L-5)*.7
+.5)
3180 PRINT AT 9,28;INT ((L-5)*.6
+.5)
3190 PRINT AT 11,28;INT ((L-5)*.
5+.5)
3200 PRINT AT 13,28;INT ((L-5)*.
4+.5)
3210 PRINT AT 15,28;INT ((L-5)*.
3+.5)
3220 PRINT AT 17,28;INT ((L-5)*.
2+.5)
3230 PRINT AT 19,28;INT ((L-5)*.
1+.5)
3240 PRINT AT 21,28;INT S
3250 RETURN
3260 STOP
3270 RANDOMIZE USR H: SAVE "T7/9
1.BB" LINE 90: BEEP .1,40
3280 RANDOMIZE USR H: LOAD "L.B1
"
3290 CLS : RANDOMIZE USR H: CAT
",,
3300 PAUSE NOT PI: GO TO G
3320 DRAW 255,NOT PI: DRAW NOT P
I,-175: DRAW -255,NOT PI: DRAW NO
T PI,-174
3330 FOR N=1 TO 21 STEP 2
3340 PRINT AT N,NOT PI; PAPER NO
T PI; "
3350 NEXT N
3360 FOR Z=10 TO 250 STEP 10
3370 PLOT Z,1: NEXT Z
3380 FOR Z=40 TO 250 STEP 40
3390 PLOT Z,2: NEXT Z
3400 FOR Z=8 TO 160 STEP 8
3410 PLOT 254,Z: PLOT 1,Z
3420 NEXT Z
3430 RETURN
3610 CLS : PRINT "USE MEGS FOR V
OLUME"
3620 FOR Y=1 TO 105
3630 INPUT "H"/"H(Y)"/"L"/"L(Y)"/"C"
"/"C(Y)"/"VOLUME"/"O(Y)"/"HS"/"X(Y)"/"L
S"/"Y(Y)"
3650 NEXT Y
HIGHS-LOWS M.A. & VOLUME NYSE

```

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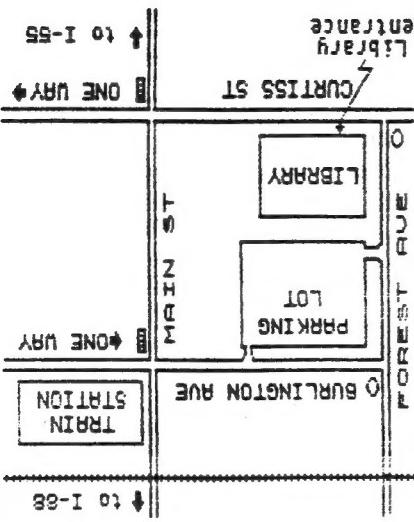
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A dense grid of musical symbols, likely representing a musical score or a specific type of musical notation. The symbols include exclamation marks (!), hash signs (#), and stars (*). They are arranged in a grid pattern, with some symbols appearing more frequently than others. The symbols are black and white, creating a high-contrast visual effect.

**In Memory of
PETER A KWITKOWSKI**



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